AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) ~~For use in a multi-protocol Network Management System application for managing a multi-protocol layered transmissions network including a plurality of network elements, a~~ A method for generating a model of ~~the~~ a multi-protocol layered transmissions network, for use in a multi-protocol Network Management System application for managing said network including a plurality of network elements, the method comprising the steps of:

(1) determining the protocol layers in the multi-protocol layered transmissions network; and

(2) for each protocol layer, mapping out an overlay including the network elements operative in the protocol layer, and at least one physical link and/or ~~the~~ a logical links interconnecting pairs of network elements where transport service along [[a]] the logical link is at least partially provided by a transmission path on a protocol layer directly underlying the protocol layer, and ~~the~~ a pair of association links between each logical link and its associated transmission path.

2. (Original) The method according to claim 1 and further comprising the step of displaying on a GUI an overlay of one protocol layer of the model with different technologies employed therein being displayed in visually distinctive manners.

3. (Currently Amended) The method according to ~~either~~ claim 1 and further comprising the step of displaying on a GUI a top view of the overlays of two or more protocol layers of the model superimposed one on the other.

4. (Currently Amended) The method according to claim 1 ~~any one of claims 1~~ and further comprising the step of displaying a 3D representation on a GUI of overlays of two or more protocol layers of the model including the pair of association links between each logical link and its associated transmission path.

5. (Currently Amended) A method according to claim 1, operative to distinguish between alarms generated at a client protocol layer and those generated ~~and~~ at any of the underlying protocol layers.

6. (Original) A method according to claim 1, operative to allow the selection of a path in the multi-protocol layered transmissions network by using at least one selection criterion for the path to be provisioned.

7. (Currently Amended) A method according to claim 6, wherein said at least one selection criterion is selected from the group comprising: distance of transmission, delay

allowed in receiving the transmission, degradation of the transmitted signals, protection ~~constrains~~ constraints, or any combination thereof.

8. (Currently Amended) A multi-protocol network management system (NMS) for managing a multi-protocol layered transmissions network including a plurality of network elements, the system comprising a processor capable of carrying out [[the]] a method of claim 1 generating a model of said network by performing the following steps:

(1) determining the protocol layers in the multi-protocol layered transmissions network; and

(2) for each protocol layer, mapping out an overlay including the network elements operative in the protocol layer, and at least one physical link and/or a logical link interconnecting pairs of network elements where transport service along the logical link is at least partially provided by a transmission path on a protocol layer directly underlying the protocol layer, and a pair of association links between each logical link and its associated transmission path.

9. (Previously Presented) The method according to claim 2 and further comprising the step of displaying on a GUI a top view of the overlays of two or more protocol layers of the model superimposed one on the other.

10. (Previously Presented) The method according to claim 2 and further comprising the step of displaying a 3D representation on a GUI of overlays of two or more protocol layers of the model including the pair of association links between each logical link and its associated transmission path.

11. (Previously Presented) The method according to claim 3 and further comprising the step of displaying a 3D representation on a GUI of overlays of two or more protocol layers of the model including the pair of association links between each logical link and its associated transmission path.

12. (New) A method according to claim 1, wherein the protocol layers in the multi-protocol layered transmission network comprise an upper protocol layer being a section of said network, operative according to a packet based protocol.

13. (New) A method according to claim 12, wherein the upper protocol layer in the multi-protocol layered transmission network is the network section operative according to an IP protocol.

14. (New) A method according to claim 12, wherein the multi-protocol layered transmission network comprises three protocol layers being three network sections respectively operative according to three technologically distinct protocols.

15. (New) A method according to claim 1, wherein said plurality of network elements comprises at least two network elements, each one from said at least two elements being operative in more than one protocol layers.